

1     WHAT IS CLAIMED IS

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*Sub A*

1. A recording head of an inkjet recording apparatus for recording an image on an object, comprising:

          a recording head unit supplied with ink for  
10    recording an image on a recording object by forming a  
      jet of the ink, said recording head unit comprising: a  
      nozzle for ejecting said jet; a passage of ink provided  
      in communication with said ink nozzle for supplying said  
      ink to said nozzle; an energization part provided on  
15    said passage for applying energy to said ink in said  
      passage to form said jet; and an ink inlet formed in  
      communication with said passage for receiving said ink,  
      said inlet including therein filter means which is made  
      from stainless steel mesh for eliminating particles from  
20    said ink supplied to said inlet; and

          an ink reservoir unit for holding therein said  
      ink, said ink reservoir supplying said ink held therein  
      to said inlet of said recording head part, said ink  
      reservoir accommodating therein a material infiltrated  
25    with said ink;

1           said recording head unit carrying thereon  
first connection means as a part of said recording head  
unit, for connecting said recording head unit to said  
ink reservoir unit;  
5           said ink reservoir unit carrying thereon  
second connection means corresponding to said first  
connection means as a part of said ink reservoir unit,  
for connecting said ink reservoir unit to said recording  
head unit;  
10          said first and second connection means being  
so formed that said first and second connection means  
establish, when said ink reservoir unit is mounted upon  
said recording head unit, a detachable engagement with  
each other in a manner, such that said ink in said  
15          reservoir unit flows to said passage in said recording  
head unit.

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2. A recording head as claimed in claim 1,  
wherein said recording head further includes a carriage  
member adapted to be mounted upon an image recording  
25          apparatus for carrying said recording head unit and said

1 reservoir unit together in the state that said recording  
head unit and said reservoir unit are connected with  
each other, said carriage member having a positioning  
part for determining the position of said nozzle of said  
5 recording head unit with respect to said carriage  
member.

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*Sub A2* 3. A recording head as claimed in claim 2,  
wherein said carriage member includes a base part for  
carrying said recording head unit and said ink reservoir  
unit and a cover part mounted upon said base part in a  
15 manner rotatable with respect thereto, said base part  
carrying a positioning part such that said positioning  
part forms a mechanical engagement with a front part of  
said recording head unit on which said nozzle is formed,  
said cover part urging said recording head unit  
20 resiliently upon said base part such that said front  
part of said recording head unit establishes said  
mechanical engagement with said positioning part.

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1       4. A recording head as claimed in claim 3,  
wherein said cover part carries thereon an  
interconnection pattern for carrying electric signals,  
and wherein said recording head unit carries thereon an  
5 interconnection pattern corresponding to said  
interconnection pattern on said cover part, said  
recording head unit thereby establishing an electrical  
contact with said interconnection pattern when said  
recording head unit and said ink reservoir unit are  
10 mounted upon said carriage member.

15       5. A recording head as claimed in claim 1,  
wherein said recording head unit has a first guide part  
for guiding said ink reservoir unit with respect to said  
recording head unit for mounting and dismounting said  
ink reservoir unit on and from said recording head unit,  
20 said ink reservoir unit having a corresponding second  
guide part for engagement with said first guide part.

1           6. A recording head as claimed in claim 1,  
wherein said second connection means of said ink  
reservoir unit comprises an opening and an elastic seal<sup>26</sup>  
part sealing said opening, said first connection means<sup>27</sup>  
5 of said recording head unit being provided so as to  
establish a communication between said recording head  
unit and said ink reservoir unit via said elastic seal  
part when said ink reservoir unit is mounted upon said  
recording head unit.

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*Para 3* 7. A recording head as claimed in claim 1,  
15 wherein said first connection means of said recording  
head unit comprises a substantially rigid tubular member<sup>27</sup>  
for insertion into said ink reservoir unit such that  
said tubular member breaks (said seal membrane<sup>39</sup>) when said  
ink reservoir unit is mounted upon said recording head  
20 part, said tubular member having a passage of ink  
therein in communication with said passage of ink in  
said recording head unit.

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1        ~~8.~~ A recording head as claimed in claim 7,  
wherein said tubular member has a sharp pointed part  
that breaks said seal membrane when said ink reservoir  
unit is mounted upon said recording head unit.

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Sub G<sup>3</sup>

9. A recording head as claimed in claim 1,  
10 wherein said ink reservoir unit further has a vent for  
communicating an interior and an exterior of said ink  
reservoir unit, said vent being closed by a removable  
seal member.

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10. A recording head as claimed in claim 9,  
wherein said removable seal member comprises a screw  
20 threaded into a wall of said ink reservoir unit.

25        11. A recording head as claimed in claim 9,

1 wherein said removable seal member comprises a  
substantially rigid projection<sup>41</sup> formed unitarily to a  
wall of said ink reservoir unit in correspondence to  
said vent for closing said vent, said projection being  
5 so shaped that said vent is formed upon breaking of said  
projection.

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